IN THE CLAIMS

The following is a complete listing of the claims, and replaces all earlier listings and all earlier versions.

1.-8. (Cancelled)

9. (Amended) An image processing apparatus comprising:

discrete wavelet transform means for performing discrete wavelet transform on ~~respective plural components constructing~~ a luminance component and two chrominance components of image data, the size of the luminance components being the same as that of each of the two chrominance components;

coefficient coding means for encoding coefficients of subbands generated by said discrete wavelet transform means; and

code data generation means for generating code data by arraying code data corresponding to ~~said respective plural~~ the luminance and chrominance components encoded by said coefficient coding means,

wherein said discrete wavelet transform means performs the number of discrete wavelet transforms on each of the two chrominance components more than that on the luminance component and decomposes ~~said respective plural~~ the luminance and chrominance components into different numbers of subbands for ~~at least~~ the two chrominance components, and wherein said code data generation means generates the code data by sequentially arraying a part or whole of code data of subbands at the same level among the code data ~~corresponding to said respective plural components~~.

10. (Amended) The image processing apparatus according to claim 9, wherein ~~said plural components constructing said image data includes a luminance component and a chrominance component, and the number of applications of discrete~~

~~wavelet transform by said discrete wavelet transform means for said chrominance components is larger than that for said luminance component.~~ in the discrete wavelet transform by said discrete wavelet transform means, the size of the lowest frequency components LL of the luminance components is 2m x 2n and the size of the lowest frequency components LL of the chrominance components is m x n.

11. (Amended) An image processing method comprising:

a discrete wavelet transform step of performing discrete wavelet transform on ~~respective plural components constructing~~ a luminance component and two chrominance components of image data, the size of the luminance components being the same as that of each of the two chrominance components;

a coefficient coding step of encoding coefficients of subbands generated at said discrete wavelet transform step; and

a code data generation step of generating code data by arraying code data corresponding to ~~said respective plural~~ the luminance and chrominance components encoded at said coefficient coding step,

wherein at said discrete wavelet transform step, ~~said respective plural components~~ the number of discrete wavelet transforms on each of the two chrominance components is larger than that on the luminance component and the luminance and chrominance components are decomposed into different numbers of subbands for at ~~least~~ the two chrominance components, and wherein at said code data generation step, the code data is generated by sequentially arraying a part or whole of code data of subbands at the same level among the code data ~~corresponding to said respective plural components~~.

12. (Amended) The image processing method according to claim 11, wherein ~~said plural components constructing said image data includes a luminance~~

~~component and a chrominance component, and the number of applications of discrete wavelet transform at said discrete wavelet transform step for said chrominance components is larger than that for said luminance component.~~ in the discrete wavelet transform in said discrete wavelet transform step, the size of the lowest frequency components LL of the luminance components is 2m x 2n and the size of the lowest frequency components LL of the chrominance components is m x n.

13. and 14. (Cancelled)

15. (Amended) A computer-readable storage medium containing a program for execution of image processing method, said program comprising:

a discrete wavelet transform module of performing discrete wavelet transform on ~~respective plural components constructing~~ a luminance component and two chrominance components of image data, the size of the luminance components being the same as that of each of the two chrominance components;

a coefficient coding module of encoding coefficients of subbands generated in said discrete wavelet transform module; and

a code data generation module of generating code data by arraying code data corresponding to ~~said respective plural~~ the luminance and chrominance components encoded in said coefficient coding module,

wherein in said discrete wavelet transform module, ~~said respective plural components~~ the number of discrete wavelet transforms on each of the two chrominance components is larger than that on the luminance component and the luminance and chrominance components are decomposed into different numbers of subbands for ~~at least~~ the chrominance components, and wherein in said code data generation module, the code data is generated by sequentially arraying a part or whole of

code data of subbands at the same level among the code data corresponding to said respective plural components.